

REMARKS

Claims 20-28 and 32 are pending.

Restriction Requirement

As suggested by the Examiner in section 1 of the Office Action, claims 14-19 and 29-31 directed to the distinct invention have been cancelled. Note: Elected claim 20 has been rewritten in independent form to include the features of its base and intervening claim. Also a new claim 32 has been added which is directed to the electronic equipment.

It is noted in the Office Action on page 4, it was asserted that “with regard to claims 20-23, these claims are based on the non-elected species, therefore will not be examined.” Apparently, it is a typographical error as claims 20-23, which are directed to the electronic equipment have been examined as set forth on page 2 of the Office Action.

Missing PTO-1449 Form

As requested the missing PTO-1449 Form of March 23, 2004 is attached.

Reply to Rejections

First Rejection

Claims 1-6, 8-13, and 20-28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lapointe et al. (US 6,100,478) in view of Srivastava et al. (US 6,469,322). This rejection is traversed.

In explaining the rejection, the Examiner asserts that element 17 is the waveguide. But as can be clearly seen element 17 of Lapointe is not a waveguide but is an extension of the key 15. See for example figure 2 and the description thereof in the reference.

Accordingly, this reference does not show or suggest what was asserted in the Office Action. In particular, claim 1 contains the feature that “wherein a phosphor emitting visible light by being excited by the light from the light source is contained in a path through which the light of the light source is guided.” This is shown for example in figures 1, 2, and 3 of the present disclosure.

Also, the phosphor material disclosed by LaPointe (USP 6,100,478) is a material in a light source which is illuminated by impressing a voltage (column 5, lines 20-25). Such a phosphor material is different from the phosphor recited in the present invention by which light emitted from the LED is converted into light of a different wavelength.

Besides, LaPointe allows a key 15 to be recognized (illuminated) merely in the color of the light source itself, whereas the present invention enables the operation member (equivalent to

the phosphor is located on the outside of (and surrounds) the light source. Owing to this structure, the operation member can be illuminated in various colors by selection of the types of phosphors (See claim 7 below).

The elastomeric sheet 17 disclosed by LaPointe merely passes light from a light source on which the sheet 17 is overlaid. Such a sheet is different from the optical waveguide recited in the present invention for guiding visible light emitted from the phosphor to the operation member, wherein the phosphor emits the visible light by being excited by the light from the light source (claim 1).

In the case of an elastomeric sheet, when light emitted from a light source is reflected, the reflected light fails to be incident on the operation member (key) and is wasted.

In contrast, with use of the optical waveguide as in the present invention, light emitted from a light source is reflected several times inside the optical waveguide before entering the operation member. In this case, the inside of the optical waveguide is filled with the light emitted from the light source. By the phosphor which is contained in the optical waveguide (also covering its entrance and exit), the light emitted from the light source is converted into light of a different color (wavelength). As a result, the operation member (key) can be illuminated in a color of the phosphor-converted light, instead of the color of the light emitted from the light source.

With respect to claim 20, the features of this claim have not been addressed. That is claim 20 originally depended on claims 19, 18 and 14. The features of claim 20 (now a base

claim) previously a dependent claim have not been addressed in the Office Action and according a rejection under 35 U.S.C. 103 is not viable. With respect to independent claim 24, this claim has also not been discussed in the rejection. Furthermore, this claim contains the feature that “a wavelength-converting phosphor paint that emits light by being excited by the light of the backlight is provided.” This feature is not shown in the references applied. The Examiner does rely also on Srivastava et al., but this reference does not cure the deficiencies of the rejection based on the basic reference of Lapointe et al. and accordingly there is no *prima facie* case of obviousness established.

With regard to the comments in the Office Action on page 4 last paragraph, the Examiner relies on In re Woodruff stating that it must be shown that the dimensions are critical. In fact, the dimensions in claim 25 do provide an unexpected result as explained in paragraph 0090 of the specification.

With respect to the dependent claims including claim 25, these claims are considered patentable at least for the same reasons as their base or intervening claims. No *prima facie* case of obviousness has been provided.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. 103.

Second Rejection

Claims 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lapointe et al. (US 6,100,478) modified by Srivastava et al. (US 6,469,322) as applied to claim 1 above, and further in view of Chien (US 5,752,337).

Claim 7 depends on claims 6, 5, 2, and 1. As explained above, the first two references do not show or suggest the features of at least the base claim 1. The addition of Chien does not cure the innate deficiencies of a rejection based on the first two references. See also the comments above regarding claim 7.

The Examiner is requested to reconsider and withdraw the rejection under 35 U.S.C. 103.

New Claim 32

New Claim 32 has been added, this claim is dependent on claim 3 and provides the feature that the phosphor substantially surrounds the light source as shown in figure 1 with element 104 being the phosphor and element 102 the light source. The features of claim 32 are not shown or suggested in the references applied.

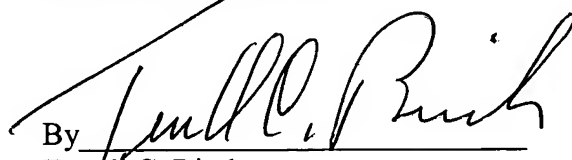
CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Elliot A. Goldberg, Registration No. 33,347 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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Attachment: PTO-1449 Form dated March 23, 2004